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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,778	09/05/2003	Thomas L. Beck	7193	6594

22922 7590 01/24/2007  
REINHART BOERNER VAN DEUREN S.C.  
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MILWAUKEE, WI 53202

EXAMINER
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GILLAN, RYAN P

ART UNIT	PAPER NUMBER
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3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	01/24/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

**Office Action Summary**

Application No.

10/655,778

Applicant(s)

BECK ET AL.

Examiner

Ryan P. Gillan

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-91 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-8, drawn to measuring the performance of a progressing cavity pump, classified in class 417, subclass 53.
  - II. Claims 9-16 and 75-81, drawn to measuring the performance of a fluid system, classified in class 417, subclass 53.
  - III. Claims 17-26 and 69-74, drawn to controlling a progressive cavity pump, classified in class 417, subclass 53.
  - IV. Claims 27-54, drawn to controlling a fluid system, classified in class 417, subclass 53.
  - V. Claims 55-67 and 82-91, drawn to controlling a fluid system utilizing a feed forward signal, classified in class 417, subclass 53.
  - VI. Claim 68, drawn to controlling a fluid system through repetitive switching of the speed of the pump, classified in class 417, subclass 53.

The inventions are distinct, each from the other because of the following reasons:

2. Groups I and II-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the

particulars of the subcombination as claimed because group I does not necessitate the following particulars claimed in groups II-VI in order to determine potential patentability: using values representing the performance of the progressive cavity pump to calculate values representing the performance of the fluid system, using progressive cavity performance values to produce one or more command signal and using the command signals to control the speed of the pump, using fluid system performance values to produce one or more command signal and using the command signals to control the speed of the pump, using pump and fluid system performance values to calculate a feedforward signal and using the feedforward signal to generate a command signal, using a check valve to prevent backflow through the pump and repetitively switching the speed of the progressing cavity pump between a set pump speed and zero speed to achieve a desired pump flow rate. The subcombination has separate utility such as measuring the performance of a progressing cavity pump.

3. Groups II and I and III-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group II does not necessitate the following particulars claimed in groups I and III-VI in order to determine potential patentability: using progressive cavity performance values to produce one or more command signal and using the command signals to control the

speed of the pump, using fluid system performance values to produce one or more command signal and using the command signals to control the speed of the pump, using pump and fluid system performance values to calculate a feedforward signal and using the feedforward signal to generate a command signal, using a check valve to prevent backflow through the pump and repetitively switching the speed of the progressing cavity pump between a set pump speed and zero speed to achieve a desired pump flow rate. The subcombination has separate utility such as measuring the performance of a fluid system.

4. Groups III and I, II and IV-VI are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group III does not necessitate the following particulars claimed in groups I, II and IV-VI in order to determine potential patentability: using values representing the performance of the progressive cavity pump to calculate values representing the performance of the fluid system, using fluid system performance values to produce one or more command signal and using the command signals to control the speed of the pump, using pump and fluid system performance values to calculate a feedforward signal and using the feedforward signal to generate a command signal, using a check valve to prevent backflow through the pump and repetitively switching the speed of the progressing cavity pump between

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a set pump speed and zero speed to achieve a desired pump flow rate. The subcombination has separate utility such as controlling a progressive cavity pump.

5. Groups IV and I-III, V and VI are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group IV does not necessitate the following particulars claimed in groups I-III, V and VI in order to determine potential patentability: using values representing the performance of the progressive cavity pump to calculate values representing the performance of the fluid system, using progressive cavity performance values to produce one or more command signal and using the command signals to control the speed of the pump, using pump and fluid system performance values to calculate a feedforward signal and using the feedforward signal to generate a command signal, using a check valve to prevent backflow through the pump and repetitively switching the speed of the progressing cavity pump between a set pump speed and zero speed to achieve a desired pump flow rate. The subcombination has separate utility such as controlling a fluid system.

6. Groups V and I-IV and VI are related as combination and subcombination.

Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other

combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group V does not necessitate the following particulars claimed in groups I-IV and VI in order to determine potential patentability: using values representing the performance of the progressive cavity pump to calculate values representing the performance of the fluid system, using progressive cavity performance values to produce one or more command signal and using the command signals to control the speed of the pump, using fluid system performance values to produce one or more command signal and using the command signals to control the speed of the pump, using a check valve to prevent backflow through the pump and repetitively switching the speed of the progressing cavity pump between a set pump speed and zero speed to achieve a desired pump flow rate. The subcombination has separate utility such as controlling a fluid system utilizing a feed forward signal.

7. Groups VI and I-V are related as combination and subcombination. Inventions in this relationship are distinct if it can be shown that (1) the combination as claimed does not require the particulars of the subcombination as claimed for patentability, and (2) that the subcombination has utility by itself or in other combinations (MPEP § 806.05(c)). In the instant case, the combination as claimed does not require the particulars of the subcombination as claimed because group VI does not necessitate the following particulars claimed in groups I-V in order to determine potential patentability: using values representing the performance of the progressive cavity pump to calculate values representing the performance of the fluid system, using progressive cavity

performance values to produce one or more command signal and using the command signals to control the speed of the pump, using fluid system performance values to produce one or more command signal and using the command signals to control the speed of the pump and using pump and fluid system performance values to calculate a feedforward signal and using the feedforward signal to generate a command signal. The subcombination has separate utility such as controlling a fluid system through repetitive switching of the speed of the pump.

The examiner has required restriction between combination and subcombination inventions. Where applicant elects a subcombination, and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

8. Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

9. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the



requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

10. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

### CONTACT INFORMATION

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is 571-272-8381. The examiner can normally be reached on 8:30 am - 5:00 pm; Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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1/18/07



  
WILLIAM RODRIGUEZ  
PRIMARY EXAMINER

1/18/07